

**CLAIMS:**

What is claimed:

1. A sports or Safety helmet where in:
  - a. A microprocessor or micro- computer is used to control the elimination of at least one electroluminescent lamp.
  - b. An multi axis accelerometer is used to detect motion and provides motion data to the processor.
  - c. An photo detector provides ambiance light level data to the processor.
  - d. An algorithm is resident in the ROM or Flash memory of the processor to manage the state of the El-lamps using light level and motion data as decision input parameters.
2. Helmet with controls as described in claim 1, wherein the photo sensor is a photo diode.
3. Helmet with controls as described in claim 1, wherein the photo sensor is a silicon photo cell.
4. Helmet with controls as described in claim 1, wherein the photo sensor is a cadmium sulfide or equivalent photo sensing device.
5. Helmet with controls as described in claim 1, wherein the accelerometer are multi axis vibration sensors
6. Helmet with controls as described in claim 1, wherein tilt sensor including but not limited to fluid filled and or magnetic devices for motion detection.
7. Helmet with controls as described in claim 1, wherein a battery-charging unit is detected in the algorithm.
8. Helmet with controls as described in claim 1, wherein illumination output elements are Light Emitting Diodes or arrays of Light Emitting Diodes.
9. Helmet with controls as described in claim 1, wherein illumination output elements are an organic phosphor.
10. Helmet with controls as described in claim 1 wherein illumination output is of multiple elements of mixed types, i.e. El-Lamps and LES's.
11. Helmet with controls as described in claim 10, where as multiple lighting elements can be sequenced or manipulated by software algorithms based on sensor inputs.
12. Helmet with controls as described in claim 10, where batteries can be conformal to outer geometry of helmet.

13. Helmet with controls as described in claims 1 through 12, wherein the power source is a fuel cell.

5 14. Helmet with controls as described in claims 1 through 13, wherein the power source is a rechargeable.